

In the Claims

1.-5. (cancelled)

6. (currently amended) A system for receiving data signals and coupling data signals to an Ethernet network, said system comprising:

a plurality of dumb nodes, each dumb node comprising a radio receiver and an encapsulator, said radio receiver including a baseband processor for providing serial data signals composed of data frames each including a packet payload, and said encapsulator including means for encapsulating said data frames within temporary Ethernet frames, and wherein each dumb node includes a multiplexer for multiplexing host controller interface data with pulse-code modulated voice data into said data frames;

an intelligent node comprising a de-encapsulator, and a protocol processor for providing addressed Ethernet packets for transmission in said network; and

a plurality of physical links, each physical link coupling one of said dumb nodes with said intelligent node;

wherein:

said encapsulator is coupled to said physical link to send said temporary Ethernet frames across the physical link only to said de-encapsulator;

said de-encapsulator includes means for receiving temporary Ethernet frames from said link and de-encapsulating said temporary Ethernet frames to recover said data frames; and

said protocol processor includes means for converting said data frames into said addressed Ethernet packets.

7. (previously presented) A system as in claim 6 wherein said encapsulator includes means for tagging said data frames before they are encapsulated within said temporary Ethernet frames.

8. (previously presented) A system as in claim 6 wherein said encapsulator includes means for inserting at least one of said data frames followed by padding data into a message section of one of said temporary Ethernet frames.

9. (cancelled)

10. (previously presented) A method of receiving signals and transmitting signals over a local area network, comprising:

receiving, at one of a plurality of dumb nodes, a spread-spectrum signal containing message data and converting said spread-spectrum signal into serial data frames conforming to a host controller interface format;

encapsulating said serial data frames into Ethernet frames;

conveying said Ethernet frames over one of a plurality of physical links only, each of said plurality of physical links coupling one of said plurality of dumb nodes to an intelligent node;

receiving, at said intelligent node, said Ethernet frames from said physical link;

de-encapsulating, at said intelligent node, said Ethernet data frames to

provide recovered serial data frames;

developing, by means of a protocol processor at said intelligent node, addressed Ethernet data packets from said recovered serial data frames; and

forwarding, from said intelligent node, said addressed Ethernet data packets to said local area network.

11. (cancelled)

12. (cancelled)